

## ***REMARKS***

### Withdrawal of Rejections from Previous Office Action

Applicants' would like to thank Examiner Cross for her time and consideration of this application and her decision to withdraw the rejection after further review and consideration of the evidence presented in the previous Office Action.

### Claim Rejections – 35 USC §103

Claims 1, 2-6, 8, 11 and 25-27 is rejected under 35 U.S.C 103(a) as being unpatentable over U.S. Patent No. 5,620,898 to Yaremko et al. ("*Yaremko*") in view of U.S. Patent 5,308,990 to Takahashi et al ("*Takahaski*") and U.S. Patent 6,182,834 to Kim et al. ("*Kim*"). Applicants respectfully traverse.

Applicants have previously submitted arguments that *Yaremko* in view of *Takahashi* do not teach/suggest the flow cytometer being used to detect interactions between components of a patient assay sample and reagent antibodies. Applicants reiterate those arguments and reasons for allowability of claims 1, 11, and 25 as if fully restated herein.

Further, the Office Action admits that *Yaremko* and *Takahashi* do not teach the filter materials of independent claims 1, 11, and 25, and instead relies on *Kim* as allegedly providing this feature of the independent claims. *See Office Action* at 3.

The filter material of Kim is a non-woven material. *See Kim* at col. 3, lines 52-60. Although some of the non-woven fibers of *Kim* overlap with some of the fibers of the claims, the filter materials of the instant claims are not directed to non-woven fabrics. Instead, the instant claims recite fabrics that are woven, or some other type of material than non-woven (which is a specific type of material). For example, attached as "Exhibit A" are print-outs of web pages from websites of companies that supply filter materials of the type recited in claims 1, 11, and 25 (e.g., "polyester mesh, nylon mesh, polycarbonate track-etched membrane, cellulose acetate"). In particular, included is a print-out from the website of Sefar, Inc., which is disclosed in the specification as providing filter materials that can be used in the claimed invention. As can be seen from the material in Exhibit A, each of the types of fabric of claims 1, 11, and 25 are clearly not the non-woven material

of *Kim*. The term “non-woven” or “nonwoven” is a specific term of art for a particular type of fabric. Attached hereto as “Exhibit B” is a printout from the *Merriam-Webster Online Dictionary*, which defines the term “nonwoven” as “made of fibers held together by interlocking or bonding (as by chemical or thermal means).” This does not encompass the filter materials of claims 1, 11, and 25.

There are numerous advantages for using the specific filter materials of claims 1, 11, and 25, as outlined in the material of Exhibit A. In addition, the use of the woven materials is non-obviousness because Applicants have discovered that the roughened topography of the woven filter materials of claims 1, 11, and 25 prevents reagents from clumping up when centrifuged.

Therefore, the cited combination of references do not teach or suggest all features of independent claims 1, 11, and 25. For at least this reason, Applicants respectfully request that the rejection of these claims be reconsidered and withdrawn.

Notwithstanding the forgoing allowability of claim 1, the Office Action admits that *Yaremko* and *Takahashi* do not teach the filter pore size of the claim 1, but instead relies on *Kim* as allegedly supplying this feature. *See Office Action* at 3. Applicants respectfully traverse.

*Kim* recites a filter material with a pore size of not more than 3 microns. *See Kim* at col. 3, lines 52-60. Independent claim 1 recites a pore size of 3-5 microns for the filter material. Thus, this is an additional non-obvious distinction of claim 1 over the cited references. Applicants therefore respectfully request that the rejection of claim 1 be withdrawn for at least this reason as well.

If independent claims 1, 11, and 25 are allowable, then dependent claims 2-4, 6, 8, and 26-27 are also allowable for at least the same reason since they incorporate all of the features of their respective independent claims. Applicants reserve the right to argue additional reasons for patentability of claims 2-4, 6, 8, and 26-27.

#### Claims 9 and 28

Claims 9 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Yaremko et al.*, (“*Yaremko*”) *Takahashi et al.* (“*Takahashi*”), and *Kim et al.* (“*Kim*”) as

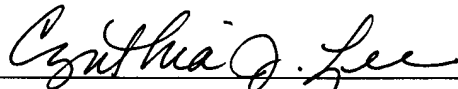
applied above, and further in view of U.S. Patent 56,603,899 to Franciskovich et al.  
(“*Franciskovich*”).

If independent claims 1 and 25 are allowable, then dependent claims 9 and 28 are also allowable for at least the same reason since they incorporate all of the features of their respective independent claims. Applicants reserve the right to argue additional reasons for patentability of claims 9 and 28.

**CONCLUSION**

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending Claims 1-4, 6, 8, 9, 11, 25-28 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephone conference would expedite the examination of this matter, the Examiner is invited to call the undersigned agent at (770) 933-9500.

Respectfully submitted,

  
\_\_\_\_\_  
Cynthia J. Lee, Reg. No. 46,033

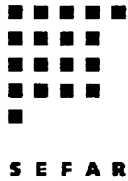
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Open mesh

Filter fabrics

Specialties

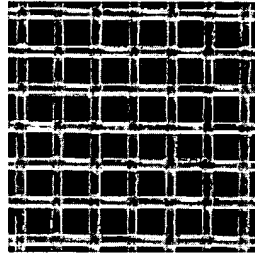
Direct Access

Sefar News

Legal Disclaimer

## Fabrics & Media

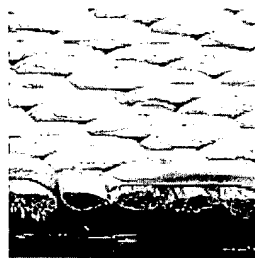
Sefar offers a huge range of different monofilament fabrics, using 15 kind of materials. Diameter ranges from 28 to 1000 µm. Regarding construction, we divide them into three groups: - Open mesh fabrics - Filter fabrics (closed mesh fabrics) - Specialties



### Open mesh fabrics

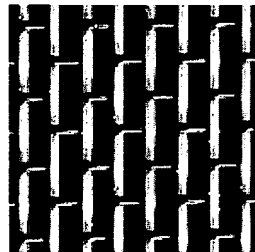
Sefar produces approx. 1'400 different open mesh monofilament fabrics with following materials:

- PA, PET, PP, ETFE, PEEK



### Filter fabrics

Filter fabrics are mainly made of monofilament yarns. In order to provide a complete range, we also use multifilament and staple fibres.



### Specialties

In this group we put all fabrics with special characteristics, such as antistatic or shrinkable fabrics.

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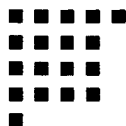
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Filter fabrics

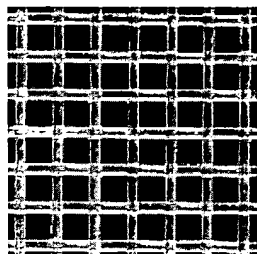
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## Open mesh fabrics



### SEFAR NITEX

Polyamide (PA) monofilament precision fabrics

### SEFAR PETEX

Polyester (PET) monofilament precision fabrics

### SEFAR PROPYLTEX

Polypropylene (PP) monofilament precision fabrics

### SEFAR FLUORTEX

ETFE monofilament precision fabrics

### SEFAR PEEKTEX

PEEK monofilament precision fabrics

### SEFAR NYTAL

PA und PET precision fabrics for flour milling

### SEFAR MEDIFAB

PA and PET precision fabrics for the medical industry

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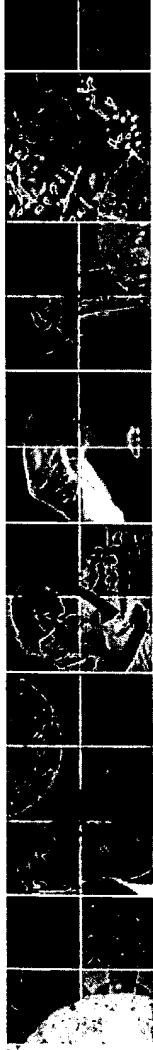
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## MEMBRANE DISC FILTERS

Silver Membranes

**Cellulose Acetate Membranes**

Product & Performance

Ordering Info

Ceramic Membranes and Disc Holders

Glass Fiber

Nitrocellulose Mixed Esters (MCE)

Polycarbonate (PCTE)

Polyethersulfone (PES) Membrane

Polyester (PETE)

Polypropylene

Polypropylene Pre-Filters

PTFE (Teflon) Laminated

PTFE (Teflon) Unlaminated

## FILTER HOLDERS

## BENCH SCALE TEST EQUIPMENT

## REQUEST INFORMATION



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- Lowest binding material available
- Hydrophilic

## Features and Benefits:

## Sterlitech Cellulose Acetate (CA) Membrane

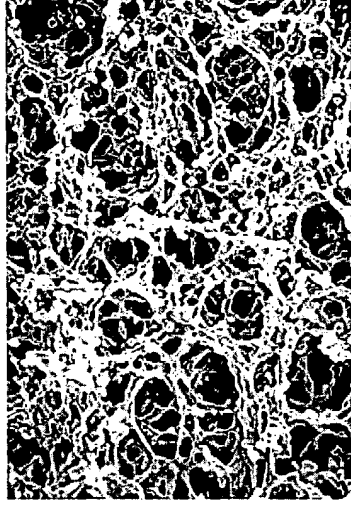
### ORDERING INFO

Sterlitech CA (Cellulose Acetate) membrane filters are composed of pure cellulose acetate modified to offer researchers the lowest binding filters available. Due to the extremely low binding characteristics, these filters provide higher throughputs than competitive offerings and reduce filter changes when filtering proteinaceous solutions.

Because of their unique strength and extremely low binding characteristics, Sterlitech CA (Cellulose Acetate) filters are ideal for protein and enzyme filtrations, tissue culture media sterilization, cold sterilization, biological fluid filtration and other filtration applications where maximum recovery of proteins is critical.

Sterlitech CA (Cellulose Acetate) membranes are manufactured using a unique impregnation process that is internally supported by an inert polyester web eliminates cracking, tearing, breaking and distortion when handled or creased.

Each filter has unequalled dimensional stability after autoclaving or steam sterilizing and is completely unaffected by temperatures up to 135°C (275°F). The exclusive impregnation process results in an acetate filter which has a burst strength of 130 psi, uniform pore size and consistent flow rates for reliable performance.



**Sterlitech™ Cellulose Acetate Membrane**

EXHIBIT A  
PAGE 3 OF 6

- High throughput
  - Strength and dimension stability
  - Uniform pore structure
- Applications:**
- Protein and enzyme filtration, sterilization
  - Biological fluid filtration sterilization
  - Tissue culture media sterilization
  - Diagnostic cytology
  - Receptor binding studies
  - Enhanced recovery of fastidious gram positive organisms

**[Click here to view the Membrane Compatibility Chart.](#)**

Cellulose Acetate Membrane [Product & Performance.](#)  
Cellulose Acetate Membrane [Ordering Information.](#)

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Cellulose Acetate

Ceramic Membranes and Disc Holders

Glass Fiber

Nylon Membranes

Nitrocellulose Mixed Esters (MCE)

Polyester (PETE)

## Polycarbonate (PCTE)

Features &amp; Applications

Product &amp; Performance

Ordering Info

Polyethersulfone (PES) Membrane

Polyester (PETE)

Polypropylene

Polypropylene

Pre-Filters

PTFE (Teflon) Laminated

PTFE (Teflon)

Unlaminated

## FILTER HOLDERS

## BENCH SCALE TEST EQUIPMENT

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## Sterlitech Polycarbonate Track Etch (PCTE) Membranes

### ORDERING INFO

Polycarbonate Track Etch (PCTE) membrane is made from a thin, microporous polycarbonate film material. It is ideally suited for use in blood assays and high-purity and general filtration.

### Precise pore size and density

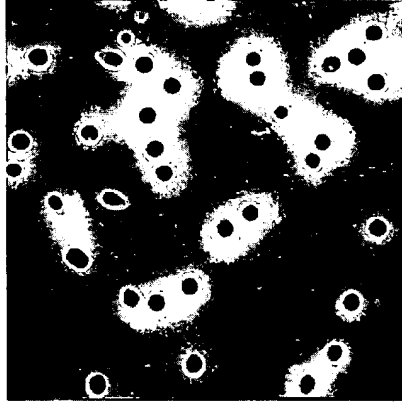
PCTE membrane is produced through a two-step, proprietary manufacturing process that employs high quality standards. This unique process allows for increased control over pore size and density to ensure the physical properties of each membrane precisely fit your specifications.

In the first step, thin polycarbonate film is exposed to collimated, charged particles from a nuclear pile. As these particles pass through the polycarbonate material, they leave sensitized tracks. In the second, step the polymer tracks are dissolved with an etching solution to form cylindrical pores. Varying the temperature and strength of the etching solution, and the exposure time to it, produces precisely controlled pore sizes.

The resulting membrane is a thin, translucent and microporous polycarbonate film with a smooth, flat surface. All particles larger than the pore size are captured on its surface. It is ideal for use when collecting samples for blood assays or for high-purity and general filtration.

### Features and Benefits ([Click for details](#)):

- Absolute pore size and density
- Smooth, thin, glass-like surface



*Polycarbonate Membrane SEM*

EXHIBIT

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- Superior strength
- Low extractables
- Low protein binding
- Negligible absorption/adsorption
- Available as hydrophilic or hydrophobic

[Click here to view the Membrane Compatibility Chart.](#)

[PCTE Membrane Features, Benefits and Applications.](#)

[PCTE Membrane Product & Performance.](#)

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**Merriam-Webster Inc.**  
**Company information**

## Merriam-Webster Online Dictionary

Merriam-Webster

☒ Dictionary**Thesaurus**☐ Thesaurus**nonwoven**One entry found for **nonwoven**.Main Entry: **non·wo·ven**

Pronunciation: - 'wO-v&amp;n

Function: *adjective*

**1** : made of fibers held together by interlocking or bonding (as by chemical or thermal means) : not woven, knitted, or felted <*nonwoven fabric*>

**2** : made of nonwoven fabric <a *nonwoven* dress>

- **nonwoven** *noun*

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nonwoven

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